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KERNERSVILLE, NORTH CAROLINA

COMMUNITY FACILITIES PLAN

PUBLIC IMPROVEMENTS PROGRAM AND CAPITAL IMPROVEMENTS BUDGET

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16. Abstracts The Community Facilities Plan analyzes and evaluates existing community facilities within the Kernersville Planning Area and determines their adequacy to serve the present and future population. Recommendations developed by the Plan are intended to guide local governmental decisions in the provision of new or improved facilities within the local jurisdiction and also for coordinating services and facilities with other agencies. The Public Improvement Program describes improvements which should be undertaken by 1985 and ranks them in an order of priority. Those high priority improvements which should be initiated during the next six years are scheduled in the Capital Improvement Budget along with estimated costs and possible sources of financing.				
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COMMUNITY FACILITIES PLAN PUBLIC IMPROVEMENTS PROGRAM AND CAPITAL IMPROVEMENTS BUDGET

MAY 1973

Prepared for the
Kernersville Board of Aldermen
and the
Kernersville Planning Board
by
Batten Associates

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COMMUNITY FACILITIES PLAN

Community facilities are those buildings, equipment, and services which are needed to provide for the health, safety, welfare, and convenience of the community as a whole. As Kernersville becomes more urbanized and the character of development more diverse, the need for new and improved facilities will become more pronounced.

This report and plan is focused primarily on those facilities provided by the Town of Kernersville. However, it is necessary also to consider those facilities which are the responsibility of other governmental bodies but which have direct bearing on the welfare of Kernersville and must be responsive to its growing needs.

The purpose of this study is two-fold: to present a guide for the Mayor and Board of Aldermen in decisions pertaining to facilities and services within their jurisdiction; and to provide basic information needed to coordinate services or negotiate new facilities and services with other governmental agencies.

Previous population and economic studies of the Kernersville Planning Area (the Town and its one mile wide surrounding area) indicate that the Area's population will increase from about 7,300 people in 1970 to approximately 11,400 people in 1985. These projections are based on trends within both Forsyth and Guilford Counties with appropriate adjustments to reflect specific trends in Kernersville to the extent they can be isolated and measured. The projected 1985 population may be conservative. If continuing evaluation reveals a more rapid growth rate than anticipated, the Town must be prepared to accelerate provision of community facilities and services.

Kernersville must be constantly aware of the costs of growth as well as the economic benefits and must carefully control future development to keep expansion in scale with local resources.

MUNICIPAL BUILDINGS AND SERVICES

TOWN HALL

Existing Facilities

The Kernersville Town Hall is a one story brick building facing East Mountain Street. Constructed in 1965, the building serves as offices for the Town Manager, Town Clerk, Town Engineer, and supporting personnel. Off-street parking is available on one side and to the rear of the building.

Evaluation

Town Hall is an attractive building and is well located to serve the community. However, it is becoming overcrowded and will be less adequate as administrative functions increase to meet the needs of a rapidly growing city. For example, staff engineering and public works activities should significantly increase as new public improvements are designed and constructed. The coming years will also bring about the need for an organized recreation program with staff support.

Recommendation

Additional space for administrative activities must be provided within the next few years. This space might be provided by an addition to Town Hall, or by utilizing space in the present Fire-Police Building if fire and police operations are moved to new facilities as suggested below.

PADDISON MEMORIAL LIBRARY BUILDING

Existing Facilities

Paddison Memorial Library is a handsome building located next to Town Hall on East Mountain Street. It was completed in 1970 at a cost in excess of \$400,000.

The main floor of the building is leased by the Town to Forsyth County for the Kernersville Public Library. Meeting and conference rooms in the basement are available for use by civic clubs, study groups, and governmental groups.

Evaluation

Paddison Memorial Library is a very flexible, community cultural center and is a significant addition to the Town. The building is of sufficient size to adequately meet community needs for the next twenty years provided it continues to be used in the same manner as it is now.

FIRE AND POLICE BUILDING

Existing Facilities

Located behind Town Hall is a one and two story masonry building housing the Kernersville police and fire departments. A court room above the fire department area is also used for public meetings and as a chamber for the Board of Aldermen. Adjoining the police station in the one-story section is a drivers license examining station and a storage area.

Evaluation

The public assembly portion of the building is generally satisfactory and sufficient in size to handle most meetings despite the fact that it must be reached by an open, outside stairway. Sections of the building used by the fire and police departments are totally inadequate in size and layout for efficient public safety operations.

Emergency vehicle movements are along a driveway which also serves parking areas of Town Hall and the library. This joint-use driveway presents a potential traffic conflict which could slow emergency responses. An even greater limitation on existing emergency vehicles is day-time traffic congestion on East Mountain Street.

The town has no fire alarm system; all alarms must be received by telephone. Eight businesses are equipped with automatic fire detection alarms which alert an alarm service which in turn telephones the fire department. The two Kernersville public schools have neither automatic alarms nor manual pull-box alarms with direct connection to fire headquarters.

Very soon both pumbers will be equipped with two-way radios operating on the Forsyth County fire frequency. This will correct a very weak point in communications by allowing a Kernersville unit to call the Forsyth County base radio station for assistance and also allowing direct communications between Kernersville and County units. Communication with the Guilford County Fire Department will remain indirect through the base station and telephone.

Under mutual aid arrangements, the Forsyth County Department could dispatch seven pumbers from three volunteer stations located north, south, and west of Kernersville. Guilford County could dispatch six pumper-tankers from two volunteer stations in the Colfax area east of Kernersville. The only piece of aerial equipment available to the town is from a Forsyth County station west of Winston-Salem. Probable response time to Kernersville would be in excess of 20 minutes.

In 1972, the Kernersville Fire Department responded to 50 building fires, 20 automobile fires, 10 grass fires, 40 emergency calls, and 25 false alarms. The average response time was approximately four minutes for apparatus and manpower. The Department also conducted 11 training sessions, 112 fire prevention inspections, and three fire prevention programs.*

* Report to Kernersville Board of Aldermen by Fire Chief Wayne Porter, January 2, 1973.

Recommendations

Additional space is needed by both the fire and police departments. One alternative would be to construct a new combination fire-police station and renovate the present building for expansion of Town Administrative functions. A second alternative would be to build only a new fire station and remodel the present fire department for expansion of police operations. Feasibility studies should be undertaken to help decide which alternative is the best long-term solution.

FIRE PROTECTION

One of the most basic municipal functions is the safeguarding of life and property from fire hazards. This function is accomplished in two ways: first, preventing fires from starting by insuring adequate, safe building construction and through careful, periodic fire prevention inspections; and second by quickly containing and extinguishing fires when they do start. Fire protection is highly dependent on the availability of proper equipment, trained manpower, and an adequate water supply.

The Kernersville Fire Department protects a service area of over three square miles within the town limits. Service is extended outside the town on call under mutual aid agreements with the Forsyth County Fire Department and the Guilford County Fire Department. At present, the Kernersville Department consists of three full-time firemen and 17 volunteers. The 1972-73 budget for fire protection is \$38,840 which represents 6.3 percent of the town General Fund Budget and a per capita expenditure of approximately \$7.75.

Existing Facilities

Fire Department operations occupy approximately 1,200 square feet of floor area in the Fire-Police Building. The apparatus floor, measuring about 30 feet wide by 20 feet deep, houses two pumper: a 1969 Ford and a 1957 American LaFrance. Each of the engines has a pumping capacity of 1,000 gallons-per-minute.

FIRE STATION COVERAGE



EXISTING FIRE STATION



ONE AND ONE-HALF MILE
TRAVEL DISTANCE



Evaluation

As a result of the addition of another pumper, initiation of fire inspection and prevention program, and improvements in the water storage and distribution system, the fire insurance rating of Kernersville was upgraded from Class VII to Class VI in 1971 by the Southeastern Fire Underwriters Association. This is a significant accomplishment. However, as the development pattern of Kernersville changes and diversifies with additional apartments, shopping centers, and industrial and distribution operations, a much higher level of fire protection service will be required.

The American Insurance Association (National Board of Fire Underwriters) has established specific travel distance standards for use in evaluating present fire station locations and in identifying the need for future stations. Table 1 presents these standards and Figure 1 illustrates their application to the Kernersville Planning Area.

TABLE 1
FIRE COMPANY DISTRIBUTION STANDARDS*

	Maximum Travel Distance (Miles)	
	<u>Pumper Co.</u>	<u>Ladder Co.</u>
High value (commercial, industrial, institutional) and high life hazard (apartments, schools)	1.5	2
Residential	1.5	2
Scattered Development	2	3

*Applicable to areas where required water flow for fire purposes is less than 4,500 gallons per minute.

Source: American Insurance Association

The greatest deficiency in the Kernersville fire protection system is the lack of an adequate initial response compliment of manpower and equipment. The first five to ten minutes of a fire is the most critical time and the strength of the first alarm contingency often determines whether a fire will be contained or whether it will spread. Kernersville's response potential is short in terms of guaranteed manpower and the lack of aerial equipment to apply an elevated water stream.

The initial response to every alarm should include one pumper and one ladder truck with sufficient manpower on the trucks to simultaneously search and clear the involved property, lay hose line, connect the pumper to a water hydrant, and position the ladder truck. Two pumpers and a ladder truck should be available to respond to alarms in high value and high life hazard areas.

Back-up protection under the mutual aid arrangements seems to be more than adequate.

Station facilities are totally inadequate to meet both present and future needs of an efficient fire service. The apparatus floor barely holds the two pumpers and doesn't have sufficient depth to house a ladder truck.

Recommendations

Within the next twelve years, the following fire department facility improvements will be needed:

- Ladder or elevating platform apparatus.
- New fire headquarters and central station with space for four fire units. This station should be located close to the downtown area but removed from major points of traffic congestion. It should be close to Cherry Street if the Cherry Street-railroad grade separation is to be constructed.
- One replacement pumper.

POLICE PROTECTION

Another of the basic municipal services is police protection. Kernersville's 1972-73 Police Department budget is \$75,186 -- 12.3 percent of the General Fund Budget and about \$12.40 per capita.

Existing Facilities

The Kernersville Police Department occupies approximately 500 square feet in the Fire-Police Building. The space is divided into a complaint-communications desk area, one office, a combination office-storage room and a four-cell jail area. The jail is used mainly for detention until a prisoner can be transferred to county jail.

Three radio equipped patrol cars are operated by the Department.

The Department currently consists of eight paid officers, including the Police Chief. Each man works a six-day, 48 hour week. Two officers are normally on duty during weeknights with heavier patrols on weekends.

Almost all training is "on-the-job" with senior members sharing their experience. A few of the officers have attended formal training courses.

The Department has access to the Winston-Salem firing range but seldomly uses it because of travel distance.

Evaluation

There are no set standards for determining the number of police officers required per population unit. The level of service and manpower depends almost entirely on local conditions. For comparison purposes though, a survey of 548 cities in the 5,000-10,000 population range by the International City Management Association indicates a median of 11 full-time and 4 part-time employees. The Kernersville Police Chief feels that two additional men are needed. This would bring the Department close to the median manpower figure.

Present building facilities are totally outmoded and not conducive to sound, efficient, and disciplined police work. The lack of classroom training (both basic and continuing) for all officers and the lack of regular firearms practice are apparent deficiencies in the police service.

Recommendations

Several suggestions for improving police service should receive high priority consideration:

- All officers in the Department who have not been through a formal training program should be sent on a rotating basis as soon as possible. All recruits to the Department must receive formal training prior to assuming duties.* Officials of the Winston-Salem Police Academy have indicated that Kernersville police officers could attend the regular 15-week basic training session without cost. The only stipulations would be that the Town continue to pay the officer's salary while attending the program, that the officer be free from duty except in emergency situations, and that the officer complete the course.
- All officers should receive regular firearms instruction and practice under a qualified instructor. This procedure is important for the protection of the officer and the public.
- The public safety officer concept should be investigated as a possible means of most economically meeting the manpower needs of both the police and fire departments.

Within the next few years, additional space must be provided for police operations. Alternative possibilities have been previously discussed.

*State law (GS Chapter 17-A-1) now requires that all police officers assigned to duty after April 15, 1973 must have completed a certified police training program.

AUTOMOTIVE MAINTENANCE BUILDING

Existing Facility

A new automotive maintenance building has been recently constructed on a portion of the Lindsay Street Landfill. The 2,400 square feet masonry building is used for the inspection and repair of town-owned vehicles.

Evaluation

The facility is completely adequate for the foreseeable future. Ample site is available for long-term expansion.

SOLID WASTE COLLECTION AND DISPOSAL

Existing Facilities

Kernersville provides twice-weekly garbage and trash collection in all residential sections of town and collections as needed (as often as once a day) to businesses and industries. Garbage collection is handled by two trucks operated by one three-man crew and one four-man crew. Another truck and crew collects trash, rubbish, and junk.

All disposal is now concentrated at the Lindsay Street landfill. The Town Engineer estimates that this site will be filled in two to three more years. Two additional landfill sites (each approximately 30 acres in size) have been acquired by the Town and are being held for future use.

The current budget for waste collection and disposal operations is \$112,155 -- 18.3 percent of the General Fund Budget and approximately \$22 per capita.

Evaluation

Solid waste collection appears to be handled in a very satisfactory and efficient manner. Since 1970 there has been a decrease in accumulations of trash and junk which were very noticeable in some sections of town.

The landfill has been the subject of numerous complaints about odor, blowing trash, and scattered refuse. These conditions and resulting public reaction is generating opposition to the use of future landfill sites. The two additional landfill areas should be adequate to handle waste disposal for a number of years.

Recommendations

Every attempt should be made to clean up and efficiently operate the Lindsay Street landfill in order to demonstrate that a landfill is not always an adverse influence on the surrounding area. In fact, a properly operated landfill should not produce odors or water pollution; it should inhibit rodents and flies and minimize the blowing and scattering of material. Trenching, loading, and compacting equipment should be added as soon as possible to help improve the operation.

Prior to utilization of the new landfill sites, careful site investigations should be made to confirm that topographical and subsoil conditions will permit efficient use of the sites. The sites should be well-buffered to minimize visual and sound influences and access roads should be located to minimize the effect of landfill traffic on the surrounding area.

WATER SYSTEM

Existing Facilities

Kernersville's primary source of water is a 115 million gallon reservoir on Belews Creek. This source has an approximate yield of one million gallons per day and is supplemented by a smaller reservoir on Kerners Creek.

Raw water is pumped from the reservoirs to the water plant on West Mountain Street for treatment. Originally constructed in 1927, the plant has been expanded twice. The most recent expansion brought the plant to a maximum possible capacity of 1.5 million gallons per day. A 300,000 gallon concrete tank stores finished water at the plant.

Elevated storage is provided by three tanks: a 100,000 gallon tank near the center of town; a 300,000 gallon tank at the Adams-Millis plant on North Main Street; and a new 500,000 gallon tank just north of I-40.

The water distribution system consists mainly of 2 inch and 6 inch lines with some 8 inch and 12 inch mains. Recent improvements were made in the system to provide better flow to all sections of the service area. The increase in storage capacity and improvement of fire flow adequacy was an important factor in upgrading the town's fire insurance rating to Class VI.

Evaluation

A 1967 engineering study* of water facilities estimated that the present raw water source coupled with expanded water treatment plant to a final 1.5 million gallon per day capacity would be able to meet the average daily water needs of 7,500 people or the maximum daily water needs of 5,000 people. It was projected that these points would not be reached until about 1987. However, Kernersville and its water service area is developing more rapidly than anticipated and the need for additional water sources is becoming more immediate.

An ongoing study of the Winston-Salem and Forsyth County water systems predicts that Kernersville will have a daily consumption of 2.77 million gallons per day from other sources.**

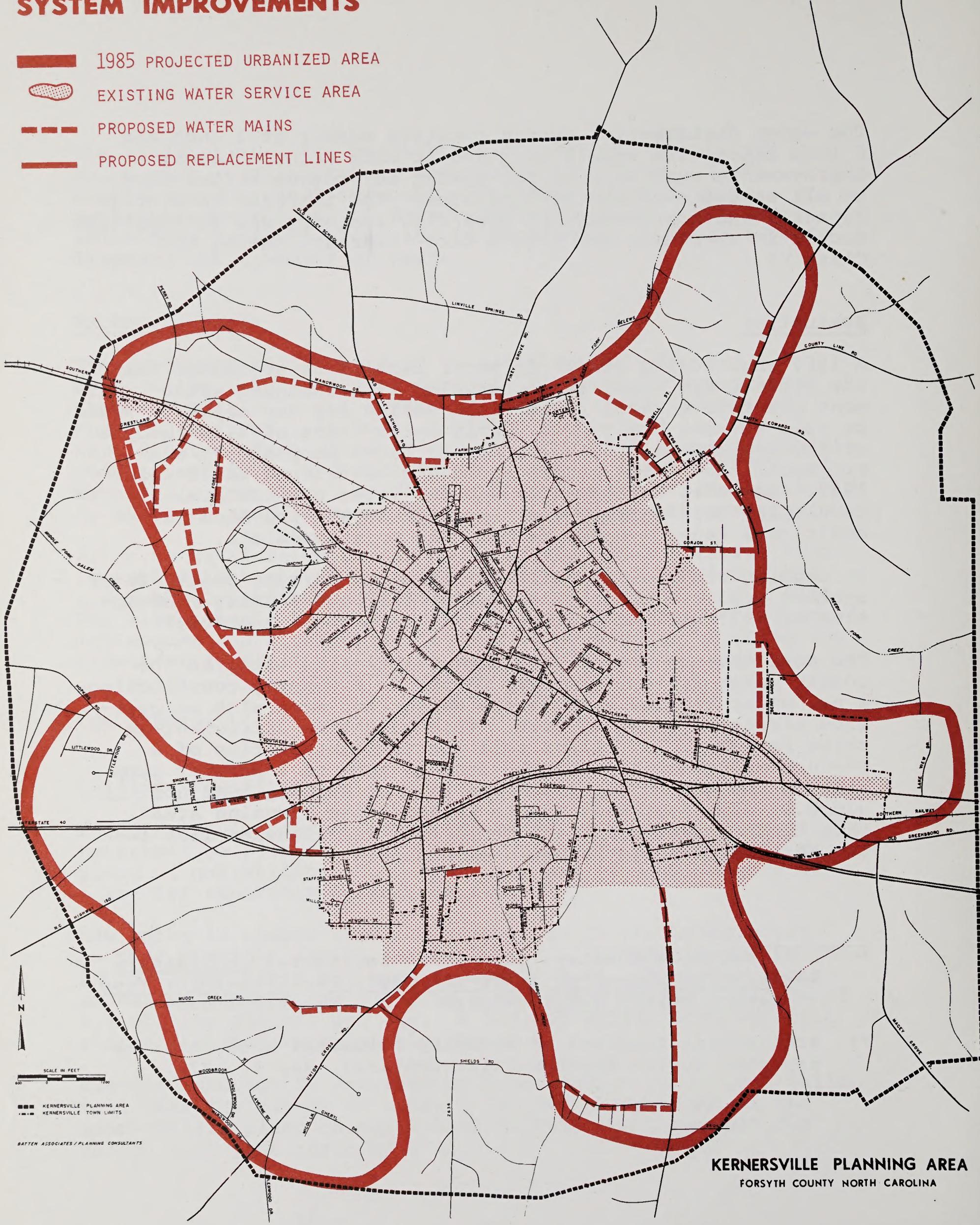
The most obvious source of additional treated water is the County water system. Forsyth County is presently constructing a new water storage tank in the Walkertown area with an overflow elevation of 1,140 feet. This height is sufficient to serve Kernersville. Plans call for the installation of a 24-inch main running from the storage tank to a booster pump station and ground level storage tank at Hopkins Road and old U.S. 421 (just west of the Kernersville Planning Area). Once these improvements are completed, an extension line into the Kernersville system would be possible.

* L.E. Wooten & Company, Consulting Engineers, Preliminary Engineering Report on Water and Sewer Facilities for Town of Kernersville, N.C., Raleigh, N.C., February, 1967.

** Preliminary findings of study by Pitometer Associates as reported in the Winston-Salem Sentinel, May 9, 1972.

WATER DISTRIBUTION SYSTEM IMPROVEMENTS

FIGURE 2



Recommendations

Findings of the forthcoming Pitometer report should be studied and considered by the Town. Exploratory talks and negotiations should be started with the County as soon as possible.

Proposed water mains to serve the 1985 urbanized area as envisioned by the Land Use Plan are illustrated on Figure 2. Also shown are high-priority replacement lines.

SANITARY SEWERAGE

Existing Facilities

Kernersville's sanitary sewerage system includes three waste treatment plants: the Abbots Creek Plant serving the southern and southeastern sections of the Planning Area with a capacity of about 500,000 gallons per day; the Reedy Fork Creek Plant serving the eastern and northeastern sections with a capacity of 750,000 gallons per day; and the Salem Creek plant serving the area's western section with a capacity of 580,000 gallons per day. The Abbots Creek and Reedy Fork Creek plants began operating in 1971; the Salem Creek plant was constructed in 1961.

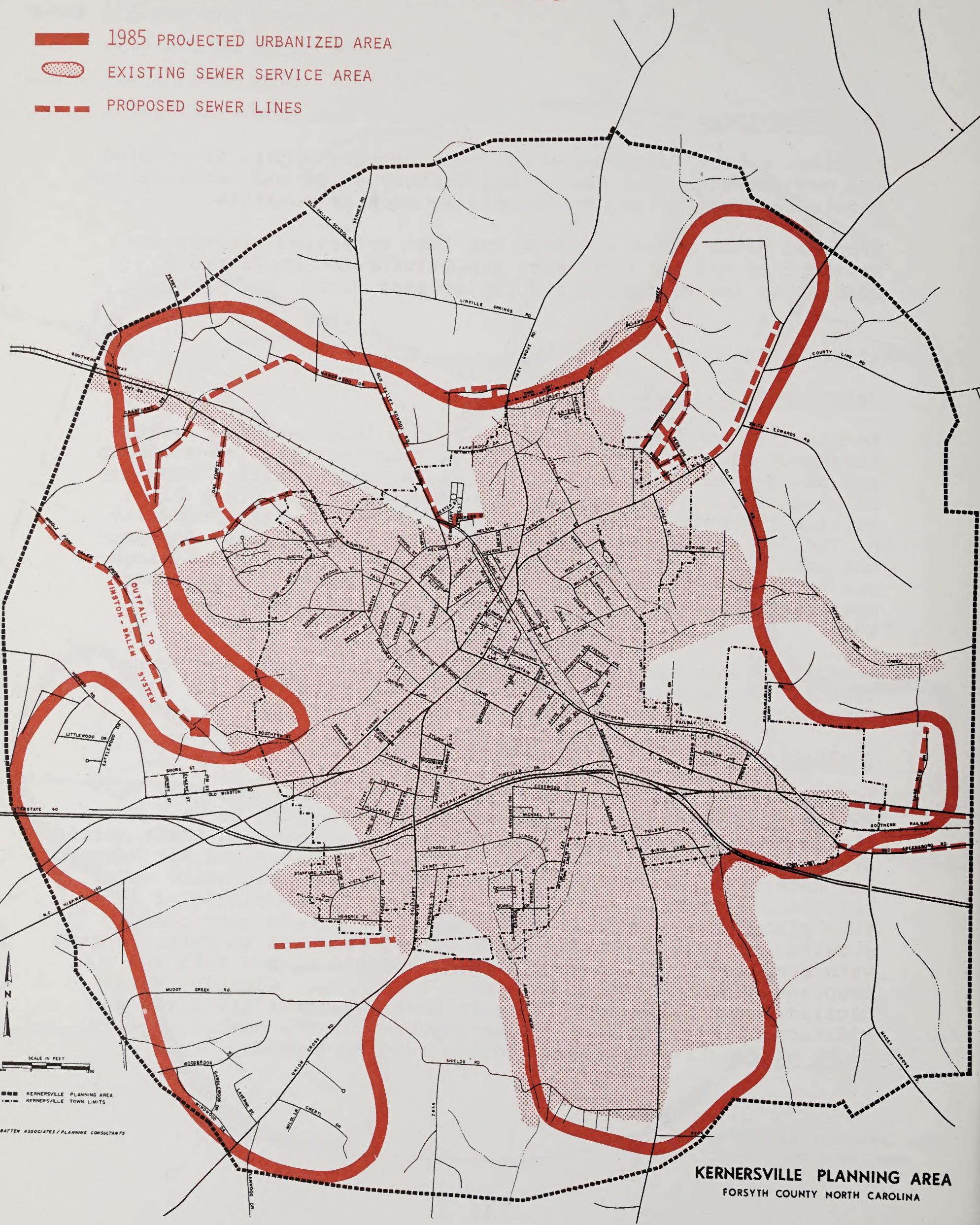
Sewers are available to all developed areas inside the town limits. The system is being extended to areas of major growth throughout the Planning Area.

Evaluation

The new Reedy Fork Creek and Abbots Creek plants meet all current water pollution control standards and appear to have sufficient capacity to serve populations anticipated in their service areas by 1985. The North Carolina Board of Water and Air Resources has determined the Salem Creek plant does not meet state water treatment standards and must be upgraded by the middle of 1976. This plant serves several of the Planning Area's most rapidly growing sections including sites of two proposed shopping centers with combined floor areas exceeding 750,000 square feet and a proposed housing complex with over 500 units. Clearly, this facility must be improved to meet both treatment standards and additional loads which might be expected in the next few years; or an alternative treatment source must be tapped.

SANITARY SEWERAGE IMPROVEMENTS

FIGURE 3



Recommendations

In 1967, the Town's engineering consultant stated: "We are of the opinion that from an overall area development standpoint the most feasible plan for the disposal of sewage from Kernersville is a tap on to the Winston-Salem sewer system." * Plans for a year 2000 System of Wastewater Collection and Treatment prepared for Forsyth County confirms this opinion and states: "The City of Winston-Salem facilities form the nucleus of a system serving the entire Muddy Creek drainage basin within Forsyth County. The System will extend into Rural Hall to the north and Kernersville to the east to serve at least part of the areas within the boundaries of these governmental units." **

On the basis of these opinions, it is recommended that the Kernersville Board of Aldermen carefully weigh the costs and benefits of upgrading and expanding the Salem Creek treatment plant against the costs and benefits of an outfall sewer conveying sewage to Winston-Salem treatment facilities.

The proposed Salem Creek outfall line is illustrated on Figure 3 along with other sewerage lines needed to serve the projected 1985 urbanized area.

STREETS

Streets have been extensively discussed in the previous Land Use Analysis, Neighborhood Analysis, and the Land Use and Major Thoroughfares Plan. High priority street improvements are identified and described in the Public Improvements Program which is included later in this report. Reference is made to these other sources.

* L. W. Wooten and Company, Consulting Engineers, Preliminary Engineering Report on Water and Sewage Facilities for Town of Kernersville, N. C., February 1967.

** W. M. Piatt and Company, Consulting Engineers, Preliminary Report, Wastewater Collection and Treatment, Forsyth County, North Carolina, August, 1971.

RECREATION FACILITIES AND OPEN SPACE

The 1985 population of Kernersville will be not only larger but more diverse in character. The average person will earn more, will be better educated, and will have more leisure time and a longer productive life. One result of these changes will be a greater demand for recreational areas: large regional facilities will meet some of the demand but there will remain a need for community and neighborhood parks near home to serve the everyday requirements of children, the elderly, and family groups.

Another result of population and economic change is already evident in the rapid urbanization of the Kernersville area. As development accelerates, the need to preserve open space becomes increasingly important. These spaces will be needed to provide visual relief, to buffer neighborhoods, and to shield community from the outward growth of surrounding cities.

Primary responsibility for preserving open spaces and providing recreation facilities must be assumed by the local government working in cooperation with state, regional, and county groups. Affirmative action is needed quickly before opportunities are lost to other development and land costs become completely prohibitive.

Existing Facilities

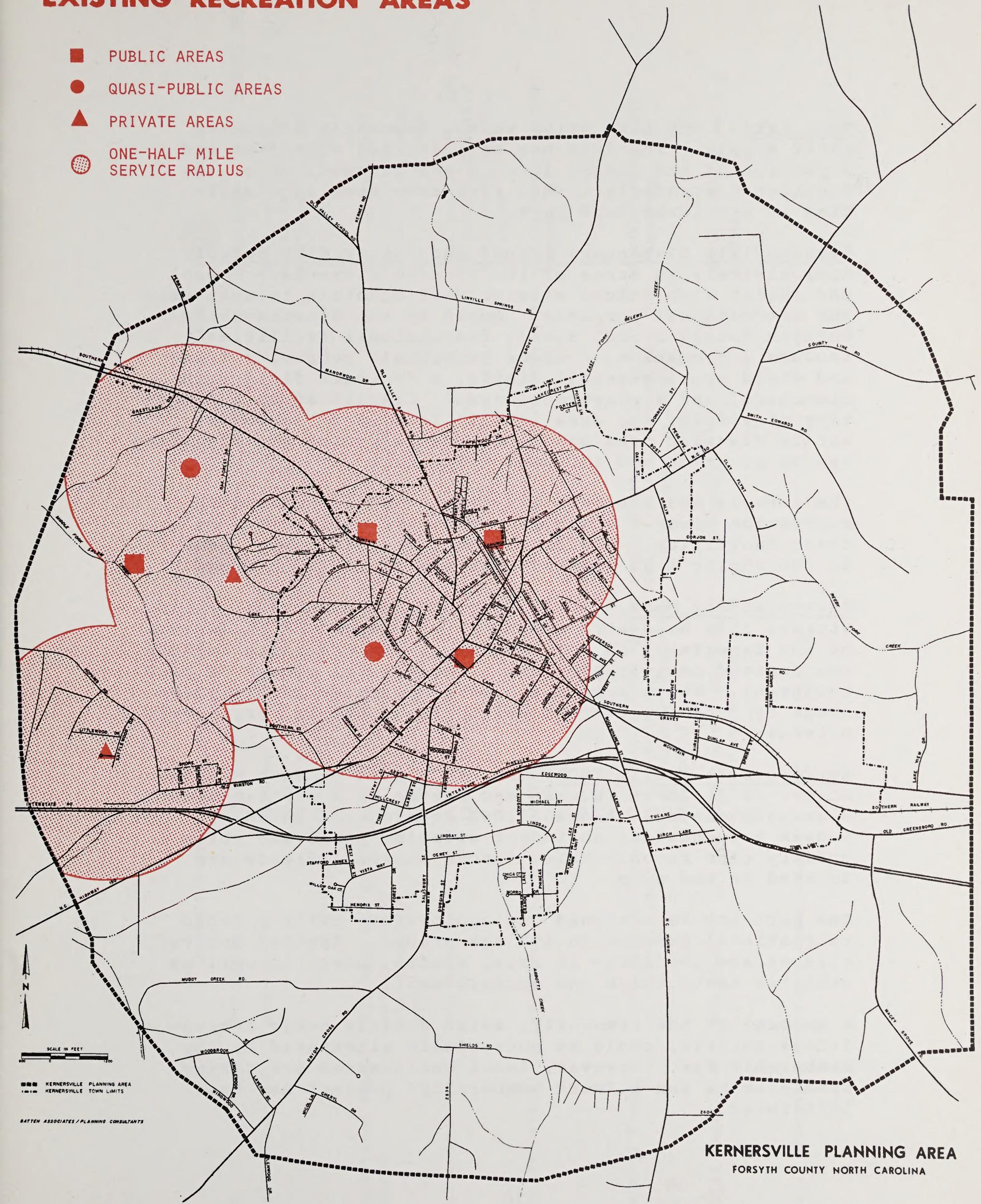
Kernersville has just over 56 acres of land in the Planning Area being used for neighborhood playgrounds and community-wide recreational facilities. These areas are owned or operated by public or quasi-public groups and are generally available to the entire community. The following descriptions summarize the characteristics of these areas:

Harmon Park. Located adjacent to the business district on Harmon Street between South Main Street and South Cherry Street, Harmon Park serves as a well equipped and attractive neighborhood park. Owned by the Town, the 1.8 acre area contains swing sets, benches, a wading pool, and various play equipment. Although the area attracts people from the entire community, its primary service area is immediately to the south, east, and west.

FIGURE 4

EXISTING RECREATION AREAS

- PUBLIC AREAS
- QUASI-PUBLIC AREAS
- ▲ PRIVATE AREAS
- ONE-HALF MILE SERVICE RADIUS



Town Lake. Off Lake Drive is the community's back-up water supply. The lake has been stocked with fish and a portion of the border leveled and grassed. From the functional standpoint, this five acre area is classified as a neighborhood park.

Kernersville Elementary School and Junior High School. Approximately 20 acres of the 29 acre Elementary School and Junior High School site on West Mountain is available for recreational purposes. Owned by the Winston-Salem/Forsyth County School Board, recreational facilities include a gymnasium, outdoor basketball courts, a track and field area, baseball fields, a football field with bleachers, and a playground area. Classified as a community playfield, the area is well located to serve the entire Planning Area and is extensively used for organized sports programs and informal activities.

The schools and the YMCA are developing a coordinated recreation program which will increase utilization of these facilities. Additional equipment is being added to the Junior High gymnasium as a part of this effort.

Church Street Park. Located on Church Street near Ballad Street, this half-acre neighborhood playground is leased by the Experiment in Self-Reliance. Improvements include two unpaved basketball courts, and several pieces of play equipment. The playground provides greatly needed play space for the surrounding neighborhood but is very poorly maintained.

Kernersville Family YMCA. The YMCA site on West Mountain Street is 26 acres in size and serves as a multi-purpose community center. A new 23,000 square foot building houses a gymnasium, an indoor swimming pool, and three utility club rooms. Three fenced baseball fields are located on the site.

The facility is designed and equipped to offer a broad recreational program to all age groups. Special interest classes are available in arts, crafts, music as well as athletic instruction and activities.

A segment of the community, which greatly needs recreational outlets, could be potentially eliminated by the membership fee. However, local businessmen are giving scholarships and a "work-membership" project has been instituted.

TABLE 2

CHARACTERISTICS AND STANDARDS FOR RECREATION AREAS IN KERNERSVILLE

Type	Age Group	Facilities	Size of Area	Location	Travel Distance
Playlot (tot lot)	pre-school childred 5-15 Years	sand boxes, swings, slides teeters, blocks, spray pools, climbing apparatus, shaded areas, benches, walks, land- scaped borders	average 5,000- 10,000 sq. ft.	near center of/ block or conges- ted apartment area	1 - 2 blocks
Neighborhood Play- ground	all ages but pri- marily school childred 5-15 Years	apparatus area for younger children; courts for tennis and basketball; swimming pool; ballfields	1 acre per 800 people-minimum of 4 acres	near center of/ neighborhood within easy, safe walking distance	1/2 mile
Neighborhood Park	all ages	benches, walkways, landscaping	1 acre per 800 people-minimum of 8 acres	near center of/ neighborhood within easy, safe walking distance	1/2 mile
Community Playfield	Youth and adults including family groups	area for active play and organized sports such as baseball, softball, football, track - preferably with stands; playground areas	minimum of 12 acres	convenient to entire community	---
Community Park	all ages	areas for active sports such as baseball, softball, foot- ball, track; courts for tennis, basketball	minimum of 20 acres- desirable size 50 acres or more	convenient to entire community	---
Special Facilities	all ages	golf course, gardens, multi-purpose community center (ie. YMCA)	varies	convenient to entire community	---

Source: Compiled by Batten Associates

First Baptist Church. Provides an open space and recreational area of some three acres which serves as a neighborhood playground when not in use for church-related functions. Facilities include a clubhouse building, paved outdoor basketball courts, playfields, and some playground equipment. The area is very functional and well located in the center of the surrounding neighborhood.

There are two privately owned neighborhood recreational facilities which play a role in meeting community recreation needs. These facilities supplement public and quasi-public facilities but should not be considered as substitutes.

Sattlewood Park. Is a limited membership facility on Sattlewood Drive, built primarily to serve the surrounding residential subdivision. The 1.1 acre site is presently occupied by a swimming pool and utility building.

Branchwood Park. Is also a limited membership facility serving the adjoining residential subdivision. Located on Branchwood Drive, the 1.8 acre site contains a swimming pool, bath house, and utility building.

Evaluation

The nationally recognized overall standard for evaluating and planning urban recreation areas is 10 acres for each 1,000 people. More specific standards for different types of facilities are set out in Table 2.

Using the overall standard to judge the adequacy of present acreage to meet current (1973) and future (1985) recreation requirements, it is found that the present combined public and quasi-public areas almost exactly meet needs of the town's population but are deficient by some 25 acres in meeting the needs of the total planning area. By 1985 an additional 63 acres will be needed to serve the Kernersville Planning Area.

TABLE 3

ADEQUACY OF EXISTING RECREATION AREAS TO SERVE
 CURRENT AND FUTURE POPULATION REQUIREMENTS,
 TOWN OF KERNERSVILLE AND KERNERSVILLE PLANNING AREA

1973 - 1985

	<u>Town of Kernersville</u>	<u>Kernersville Planning Area</u>		
	<u>1973</u>	<u>1985</u>	<u>1973</u>	<u>1985</u>
Estimated Population	5,200	7,600	7,900	11,400
Acreage required to serve pop.	52	76	79	114
Acreage existing - 1973	56	56	56	56
Minimum additional acreage needed	0	20	23	58

Source: Batten Associates

The school property and the YMCA site provide sufficient area at present for community playfield and park facilities. A notable shortage exists in neighborhood parks and playgrounds. Just over five acres are now used for these types of recreational facilities.

Recommendations

The Open Space and Recreation Area Plan, illustrated by Figure 3, proposes a complete and well balanced system of recreational areas which will provide leisure time opportunities for everyone in the community on an equal basis.

FIGURE 5

OPEN SPACE AND RECREATION AREA PLAN

▲ EXISTING RECREATION AREAS

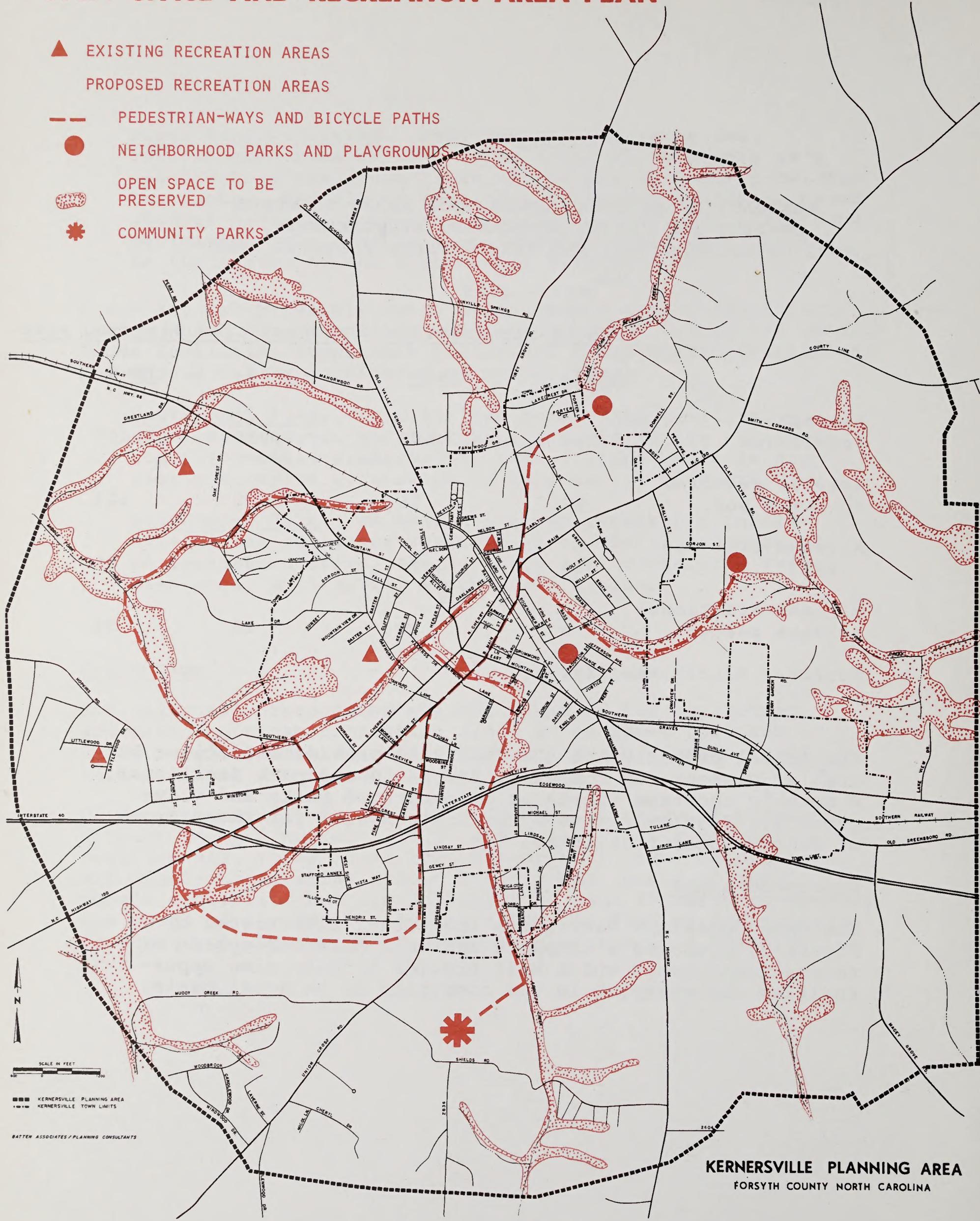
PROPOSED RECREATION AREAS

— PEDESTRIAN-WAYS AND BICYCLE PATHS

● NEIGHBORHOOD PARKS AND PLAYGROUNDS

OPEN SPACE TO BE PRESERVED

* COMMUNITY PARKS



KERNERSVILLE PLANNING AREA
FORSYTH COUNTY NORTH CAROLINA

Specific proposals of the Plan include:

1. Four new combination neighborhood parks and playgrounds with a minimum of 12 acres each. These areas should be located to serve the northern, eastern, central, and southwestern sectors of the Planning Area. Suggested general locations shown on the Plan take into consideration potential intensity of future residential development, existing and proposed major thoroughfares, and other barriers to the easy and safe use of the facilities. Suggested improvements for optimum development are listed on Table 2.

All of these areas should be publicly owned or operated in such a manner that they are available to all people within the surrounding neighborhood.

2. A community park in the southern section with a minimum area of 20 acres. This park should be Town owned and located to serve the entire portion of the Planning Area below I-40. Suggested improvements for optimum development are listed on Table 2.

3. A system of open spaces and linear parks designed to:

- form buffers between neighborhoods and different land use areas.
- provide visual relief, preserve a sense of openness, and break up the potential monotony of continuous urban development.
- provide for passive recreational pursuits
- provide pedestrian walkways and bicycle paths linking neighborhoods with shopping areas and community facilities.

Since the proposed open space system follows stream valleys and flood plains which are generally unsuitable for development, flood plain zoning could be used as a principal preservative tool. Easements would be obtained for development of pedestrian ways and bicycle paths although a few key linkages might have to be purchased outright.

All open space areas should be maintained in a natural state. Recreational activity areas should be developed only in carefully selected locations.

Recommendations for existing facilities include:

1. Acquisition of Church Street Park by the Town and the addition of paved multi-purpose courts, walkways, lighting, benches, water fountains, and landscaping.
2. Construction of tennis courts on the Kernersville School site and/or on the YMCA property.
3. Renovation of the small structure at Harmon Park.

The initiative for implementing the Open Space and Recreation Area Plan rests with the Board of Aldermen. Quasi-public and private facilities have played and will continue to play a large role in meeting Kernersville's recreational needs. However, this approach can no longer be completely relied on if the entire community is to be adequately served now and in the future. Every possible resource and method of land acquisition should be considered including:

1. Outright purchase of park land by the Town utilizing local funds, Federal General Revenue Sharing Funds, or Federal Community Development Revenue Sharing Funds.*
2. Purchase of development rights or open space easements.
3. Utilization of Tax delinquent land.
4. Enactment of flood plain zoning to protect open spaces as well as to prevent development of unsuitable areas.
5. Reservation or dedication of park land through the subdivision process.
6. Encouragement of planned residential developments.
7. Coordination with the North Carolina Department of Natural and Economic Resources in its program to place state parks in urban areas.

* Community Development Revenue Sharing is a part of the Administration's proposed Better Communities Act which is pending introduction and enactment by Congress.

PUBLIC SCHOOLS

The Winston-Salem/Forsyth County School Board has jurisdiction over all public schools in the County. For the past two years the system has operated under a complex, court-ordered school assignment plan.

In Kernersville's case, the assignment district includes the Town and its surrounding area plus areas within the inner city of Winston-Salem. Since school planning is totally in the hands of the School Board and must encompass considerations beyond those factors which can be localized and assessed with the Planning Area, this section is limited to site and building adequacy of the two schools in Kernersville as related to current enrollment. Future school enrollments and assignments are not projected.

Existing Facilities

The two public schools in Kernersville are Kernersville Elementary School and Kernersville Junior High School. Both are located on the same West Mountain Street site, which is just over 28 acres in size.

Kernersville Elementary School

Serving grades one through four, the 47-year old elementary school building has 37 permanent classrooms. One portable classroom unit is presently in service. Other facilities include administrative offices, library, cafeteria, and a physical education building.

Enrollment reached a high of 1,210 students in 1970-71, dropped to 993 the next year, and increased to 1,024 students in the current 1972-73 school year - - an average of 28 students per classroom. Under the present assignment plan, enrollment is expected to average 915 students over the next six years.* The school's capacity is 1,130 students.

Kernersville Junior High School

Presently a seventh and eighth grade school, Kernersville Junior High occupies two buildings containing 11 general classrooms, four specialized classrooms, offices, a library, physical education facilities, and a cafeteria. There are also six portable classrooms currently in use. The school was built in 1948 and has been improved several times since then.

* Research Department, Winston-Salem/Forsyth County School Board.

Enrollment has fluctuated over the past four school years ranging from a low of 519 students in 1969-70 to 561 in 1970-71, dropping to 530 during 1971-72 and then increasing to 572 this year. The average classroom size at present is 30 students. According to the School Board Research Section, enrollment is expected to average 494 pupils per year over the next six years if the present assignment plan remains in effect.

Evaluation

Kernersville Elementary School

A 1969 study by a group from George Peabody College* evaluating all schools in the County describes Kernersville Elementary in these terms: "This plant is old and obsolete. It should be phased out at the earliest possible date."*

A cursory inspection of the school in January, 1973, conducted as a part of this community facilities study revealed many renovations which have undoubtedly been made since the Peabody Report. Of course, the building's age has not changed, but new additions have enhanced and upgraded the facility. Improvements include: complete rewiring; new ceilings with modern overhead lighting; new toilet rooms; enlarged kitchen and dining area; two additional conference areas for speech, reading, and tutoring; and one additional clerical area. The older classrooms with their large coat rooms lend themselves well to new uses such as storage and individual study areas. Much imagination and care has been exercised in gaining more usable space and in decorating the building. The atmosphere is pleasant and seems most conducive to learning. Despite its age, the building appears to be completely safe for educational purposes.

Kernersville Junior High School

The Peabody Report lists the following deficiencies in Kernersville Junior High: lack of an auditorium; poor art and music areas; and congested student movement.

A general inspection of the school in January as a part of this study found the facility in generally good repair although in some cases housekeeping was poor. The lack of an auditorium does not seem to hinder the school program because the gym is equipped with bleachers and the adjoining elementary school auditorium is usually

*George Peabody College for Teachers, Division of Surveys and Field Services, Winston-Salem/Forsyth County Public Schools, a Survey Report, Nashville, Tennessee, 1969.

available to the Junior High. The art area is well equipped but space is extremely limited. There is no band room and instrumental music is taught in the cafeteria. There are not enough permanent classrooms, too few toilet facilities for students and teachers, and a lack of conference areas. Traffic patterns are poor because of original design deficiencies. In fact, circulation problems are reaching a danger point.

Recommendations

Kernersville Elementary School

With only minor improvements and continued maintenance, this facility should be able to function well for at least the next twelve years, provided enrollment remains as expected. Improvements should include new flooring on the ground floor; an enlarged teacher's lounge area, and additional equipment for the physical education facility. The heating system should be switched from coal to gas for cleaner operation provided assurance can be received from the gas company that fuel will be available as needed.

Kernersville Junior High School

Although the Junior High building is almost 20 years younger than the Elementary School, considerably more improvements are needed to insure its adequacy. Additional permanent classrooms and storage facilities are needed; music room and other special interest areas should be added. Better housekeeping, redecoration, and lively, colorful displays would improve the school's appearance and help student interest and pride.

General

The School Board should carefully monitor Kernersville development trends and housing starts (including mobile home placements) and input these factors into their procedures for projecting school enrollments.

COUNTY FACILITIES AND SERVICES

LIBRARY

Existing Facilities

The Kernersville Branch of the Forsyth County Public Library system is located in the Paddison Memorial Library Building. Over 17,000 volumes are presently available in the library which has a capacity of 40,000 volumes. There are 3,300 registered patrons with a circulation averaging 5,000 volumes per month. The service operates on a 59-hour week, Monday through Saturday, with a staff consisting of a head librarian, two library assistants, two part-time library assistants, and three part-time library "pages".

Other services of the library are: circulation of art reproductions and records; "Program Outreach", taking books to shut-ins; and library help for the blind and disabled.

Evaluation

The library service is excellent. Additional books and periodicals are being provided as quickly as funds are allocated and innovative programs are being initiated to reach all segments of the community.

Recommendation

The only recommendations are that the community participate more fully in programs offered by the library and that additional volunteer assistance be provided for outreach efforts.

HEALTH SERVICES

Existing Facilities

A traditional practice in Kernersville has been for local physicians to provide health care for all people regardless of their ability to pay. While this practice is admirable, it places a load on the physicians which should be more appropriately carried by the public.

The nearest Forsyth County Health Department facility to Kernersville is a night clinic at Sprague and Waughtown Streets in Winston-Salem. Reynolds Family Health Center in Winston-Salem is also available to county residents on a sliding fee scale. A person unable to pay anything will still be treated.

Transportation is available from one's home to health facilities by appointment with the Health Department. In the past, at least one Kernersville Church group also offered transportation to clinics.

Evaluation

Extremely good health care services are available. However, information developed by the Health Department indicates that there are segments of the Kernersville population with health problems who are not seeking care from any source. One reason for this is believed to be a strong reluctance to leave home, the neighborhood, and the community. Another reason is a lack of awareness about the need for health care. For example, some mothers do not understand that a well baby should be seen on a regular basis in order to head off future problems.

Recommendations

A first step in improving the delivery of health services to Kernersville should be a concentrated educational campaign aimed at changing attitudes on health care.

Secondly, despite the availability of transportation to facilities in Winston-Salem, it is generally agreed among health authorities that a night clinic should be located in Kernersville. Several facilities have been offered previously, including a physician's office and room in a church educational building. The importance of continuity of service has been stressed as an essential element in the proper operation of a local public clinic.

At this point, initiative for establishing a public health clinic in Kernersville rests with the town.

AMBULANCE SERVICE

Existing Facilities

Ambulance service in Kernersville and the rest of Forsyth County is provided by the county. Five units staffed by 32 drivers and attendants are in operation now. A sixth unit is to be added next fiscal year.

The ambulances are presently stationed at Smith Reynolds Airport but will soon be moved to Reynolds Health Center. This move will decrease response time to Kernersville to about ten minutes depending on traffic and weather conditions. On weekdays, one ambulance is stationed at the Waughtown Fire Station in order to better serve the eastern part of the county. Response time to Kernersville from this location runs about five minutes.

Three hundred seventy-five thousand dollars is budgeted for annual operation of the service; approximately \$125,000 will be met from service fees. Equipment and manpower costs run about \$60,000 per unit.

Evaluation

The service is handling in excess of 1,100 emergency and non-emergency calls each month. Approximately 3 % of these calls are in the Kernersville area. Although there is a complete understanding of the feelings of many Kernersville citizens that an ambulance should be stationed in Kernersville, the service cannot justify this from either a financial or operational point of view. With only five units serving the whole county, there are many times when most or all of the units are moving. Even if a unit was stationed in Kernersville, there would be no assurance under present operational requirements that it would be there when needed for emergency cases.

Recommendations

The ultimate solution to reducing ambulance response times to all parts of the county is a district station arrangement with units assigned to specific sectors and available to cover adjoining sectors when the primary unit is on call. This type of operational system requires many more units than can be provided at this time.

One of the best alternatives to immediate ambulance response is already in effect in the Kernersville area -- the response of a trained rescue squad to stabilize the victim until an ambulance arrives. Beesons Crossroads rescue squad has been trained in advanced first aid and is being called to the scene of personal injury accidents. As a back-up to the rescue squad, it is suggested that all Kernersville policemen and full-time firemen receive a high level of first aid training so they may render stabilizing care.

SOCIAL SERVICES

Existing Facilities

All social services within the county are administered by the Department of Social Services from a central office with the exception of food stamps, which are distributed on a more localized basis. In Kernersville, food stamps are available to qualified persons at Town Hall.

The following social services are provided in Forsyth County:

- . Old Age assistance
- . Aid to the blind
- . Aid to the permanently and totally disabled
- . Aid to families with dependent children
- . Medical assistance
- . Boarding and nursing home care
- . Food stamp program
- . Homemaker service

Data on social service needs are maintained on a county-wide basis. Due to the method of tabulation, it is virtually impossible to process the data to determine specific needs within any given subdivision of the county.

Evaluation

Presumably all available social programs are being extended to Kernersville people. However, without a thorough diagnostic survey and referral system at work in the community, there are probably people eligible for assistance who are not receiving it because they are not aware of their eligibility, they don't know how to apply, or they lack transportation to the social services office.

Social service case workers are assigned to clients on a categorical program basis rather than according to geographical area. Under this arrangement, a person receiving three types of assistance -- say old age assistance, aid to the blind, and medical assistance -- might be called on by three different case workers. This arrangement would seem to hinder continuity and the ability of a worker to become fully acquainted with all of a client's needs. At the same time, it seems to be extremely inefficient from just the logistical standpoint.

Recommendations

Sample family surveys conducted in 1970 as a part of the Neighborhood Analysis revealed the need for an effective broad range social services program in several sections of Kernersville. Additional surveys are needed to further define and document the needs.

It would seem to be the responsibility of the Department of Social Services to make a detailed determination of social service needs in Kernersville and then design an effective system for delivering these services to the community. This should be done!

PUBLIC IMPROVEMENTS PROGRAM AND CAPITAL IMPROVEMENTS BUDGET

The Public Improvements Program and the Capital Improvements Budget are essential elements in Kernersville's planning program. Their purpose is to translate recommendations of the previous Land Use and Major Thoroughfare Plan and the accompanying Community Facilities Plan into specific projects and to coordinate execution of these projects within two contexts.

- Overall needs of the Town -- both now and in the future;
- Financial ability of the Town to undertake the projects.

These elements are intended to supplement the regular budgeting process by providing a flexible guide and working documents to aid future financial decisions and project scheduling. In this way, the Town can anticipate its problems and prepare for their solution within the framework of available resources. As with any planning element, the improvements program and budget must be continually reviewed and updated to reflect the needs and capability of this constantly changing community.

Included in this report are:

- The Public Improvements Program listing all capital improvements the Town should undertake by 1985 in an order of recommended priority.
- A Financial Profile of local fiscal capability.
- The Capital Improvements Budget listing by year those improvements which should be initiated during the next six years along with estimated costs and possible sources of financing.

PUBLIC IMPROVEMENTS PROGRAM

Previous elements of the Town's comprehensive plan have identified public capital improvements which are needed to adequately serve the community. For purposes of this study, a public or capital improvement is defined as a new or expanded physical facility which is of relatively large size, relatively expensive, and relatively permanent (minimum life span of ten years).

In order to efficiently and effectively undertake these improvements; it is necessary to establish the urgency of need for each item.

DETERMINING PRIORITIES

Each capital improvement must compete for financing resources. It is necessary then to analyze each capital item and ascertain its position in terms of importance to the community. Priority judgments have been made by considering the following questions for each proposed project:

- What is the relationship of the improvement project to the welfare and progress of the entire town?
- How many citizens will be helped by the improvement and how many will be harmed or inconvenienced if the project is not constructed?
- Will the improvement replace an existing outworn facility or is it a new venture?
- Will the improvement increase the city's operating budget or will the project be largely self-supporting?
- Will the improvement add to the value of the area and thereby increase property valuation?

IMPROVEMENT PROJECTS

Results of the priority determination process are reflected in the following rankings:

1. Extend a sanitary sewer outfall line from the Salem Creek waste treatment plant to connect with Winston-Salem outfalls and treatment facilities; or, as a seemingly less desirable alternative, upgrade and expand the Salem Creek plant.

The North Carolina Board of Water and Air Resources has determined that the existing Salem Creek waste treatment plant is not meeting water quality standards. Resolution of the problem is required by the middle of 1976. Two alternative solutions are expressed above.

The Salem Creek drainage area contains several of the Planning Area's most rapidly growing sections including sites of two proposed shopping centers with announced combined floor area exceeding 750,000 square feet and a proposed housing complex with over 500 units. All told, the Salem Creek facility might have to serve three to four thousand residents within the foreseeable future plus sizable commercial facilities - - above its present capability.

Due to the magnitude of pending development and the upgrading requirement of the State, this improvement is assigned first priority. Extension to the Winston-Salem system seems most practical from the non-engineering standpoint since it would not require additional operating costs - (it would actually save operating costs if the existing plant could be abandoned) - and would possibly require a lower capital expenditure.

2. Purchase loading, trenching, and compacting equipment* to improve landfill operations.

Improvement of the present landfill operation is critically needed to eliminate potential health hazards and to build public confidence in this method of solid waste disposal. These reasons support a high priority rank.

The immediate beneficiaries of this capital improvement will be families near the landfill operation. Ultimately though, the whole town will benefit, when the present site is completed and can be reused for other purposes (either public use or sold for private use) and also through reduced opposition to future landfill operations on new sites.

* Normally equipment of this type is not considered a "capital item." However, if quality equipment is obtained and is well maintained, it should have a useful life approaching ten years.

3. Extend water and sewer lines to the proposed shopping center area in the northeast quadrant of the NC 150 - I-40 interchange and simultaneously to the proposed commercial-residential complex on the southside of I-40 between NC 150 and Salisbury Street.

These improvements are necessary to implement the Town's development decisions to encourage growth in the southwestern section of the Planning Area.

An estimated 1500 to 2000 residents and an unknown number of commercial establishments will directly benefit from these improvements. The entire Town will benefit from increased tax revenue.

4. Modify the I-40 - NC 150 interchange and improve South Main Street (NC 150) from the Cherry Street-Old Winston Road intersection to a point of intersection with the future Southern Outer Loop.

These improvements are the result of the Town's development decision concerning growth in the southwestern sector of the Planning Area and are extremely critical to preventing traffic congestion on both I-40 and NC 150. An estimated 28,000 trips per day would be generated by the shopping and housing developments now proposed along NC 150. A generation rate even approaching this magnitude will seriously overload the present diamond interchange and two-lane bridge and will create hazardous conditions affecting the entire region.

NC 150 would be widened to four lanes with additional storage and turning lanes at certain points. The bridge over I-40 must also be widened to four lanes and the interchange should be converted to a full cloverleaf if at all possible. Extension of ramps in the present diamond design would not eliminate turning conflicts on NC 150 as illustrated by similar situations in Charlotte.

Immediate steps must be taken to initiate these improvements while land is still vacant and right-of-way can be obtained. Efforts should be made immediately to secure as much of the right-of-way as possible through dedication since the improvement will be of greatest immediate benefit to adjoining property owners and is necessitated by their development activities.

Financial responsibility for the improvements rests with the State Highway Commission. However, it is up to Kernersville to express the importance and potential severity of the situation and press for a solution before traffic congestion develops to critical proportions.

5. Improve High Point Road (NC 66) from I-40 to Shields Road.

Located along High Point Road are some of the Triad Area's major distribution and trucking operations. The road is presently a narrow, two-lane rural section with inadequate capacity to handle the rapidly increasing traffic volumes.

Improvements proposed include widening to a four-lane urban section with appropriate storage and turning lanes. The resulting facility will benefit the Town as a whole by improving safety and convenience.

Financial responsibility for this improvement lies with the State. As with other street improvements, the Town must take the initiative to get the work underway.

6. Extend a treated water supply line from a proposed county pump station and ground level storage facility at Hopkins Road and U.S. 421 to tie with the Kernersville water system.

One of Kernersville's most critical future needs is additional water resources to meet the demands of new development. As discussed in the Community Facilities Plan, the most sensible approach is to link with the county water system. Steps have already been taken by Winston-Salem and Forsyth County to make this link possible. The entire community would benefit from this improvement which would significantly add to the economic potential of the town with little continuing operational expense.

7. Acquire and improve Church Street Park.

Church Street Park is presently provided by the Experiment in Self Reliance under a lease arrangement with the property owners. The park is poorly maintained and is not adequately serving an area which badly needs recreation space.

Acquisition and improvement of the park would enhance the neighborhood and benefit some 200 families in the immediate area. Additional operating expenses would be required to keep it in usable shape.

8. Acquire land and develop a combination neighborhood park-playground in the Burke Street section of town.

Another neighborhood in serious need of recreation facilities is the central section east of Bodenhamer and bisected by Burke Street. A well-developed park in this area would serve an estimated one thousand people, would improve the neighborhood, and would meet some social needs.

9. Construct Southern and Western Legs of the Outer Loop.

This improvement is proposed by the Thoroughfare Plan to initially extend westward from NC 66 (south) with its trucking and distribution complex, pass along the south side of the large proposed shopping center/housing area between Salisbury Street and NC 150, interchange with NC 150, then extend one mile west to a new interchange with I-40. The Western Leg would run from the new I-40 interchange northward to the industrial park along West Mountain Street (NC 66 west). This major street arrangement, which should be designed as a four-lane parkway section with median, will provide a direct link between some of the Planning Area's heaviest traffic generators and will help relieve congestion in the central part of town. The new I-40 interchange and street section south of the proposed shopping center will relieve some of the pressure on the I-40 - NC 150 interchange by providing access from another direction.

Benefits from this improvement would be region-wide. Responsibility for planning and construction rests with the State Highway Commission. However, town government must take the initiative to get the improvement process underway.

10. Construct a new Fire-Police Building.

As pointed out in the Community Facilities Plan, the present fire-police facilities are totally inadequate. Modern, spacious facilities are necessary to the continuation of efficient police and fire operations which are essential to the well being of the entire community.

Aerial apparatus (either a ladder truck or an elevating platform truck) and a replacement pumper should be added upon completion of the station.

11. Construct Western Leg of Inner Loop from Cherry Street to West Mountain Street.

This improvement is proposed by the Thoroughfare Plan as a means of bypassing the center of town and thereby reducing traffic congestion. It will also greatly improve access to the Town's western neighborhood. Sufficient right-of-way should be provided for an eventual four-lane section although initial construction would probably be limited to two lanes.

Benefits from this improvement would be community-wide.

Responsibility for both initiation and construction rests with the locality.

12. Extend water and sewer lines to serve development on Oak Ridge Road.

Extensive development -- primarily mobile home parks -- has been taking place north of the present water-sewer service area west of Oak Ridge Road. Due to the density of development, it is important for public health reasons to extend public water and sewer services to these developed areas which contain an estimated 500 people.

The initial capital investment should be returned through resulting revenue.

13. Improve North Main Street and Oak Ridge Road from the Bodenhamer intersection to the Planning Area boundary.

North Main Street is expected to become a more heavily traveled traffic collector as residential development increases in the northern and eastern sections of town. A four-lane urban section should be provided.

Benefits from this improvement will accrue to residents and businesses in the northern and eastern sections of town and to through regional traffic.

This improvement should be State sponsored.

14. Acquire land and develop a combination neighborhood park-playground in the northern section of town.

As the Town's northern section continues to grow (encouraged by street improvements and water-sewer extensions), the already existing need for nearby recreation facilities will become more acute. A well-developed park in this area would serve an estimated 1500 people, would enhance the neighborhood (and the tax base), and would meet some distinct social needs.

15. Construct Eastern Leg of the Inner Loop from Bodenhamer to North Main.

A key Thoroughfare Plan proposal to help relieve traffic congestion in the in-town area is the Eastern Leg of an inner loop. The Bodenhamer-Mountain Street intersection would be extensively modified with a new four-lane street swinging eastward across the railroad to tie with North Main Street (NC 150) just west of the Adams-Millis plant.

Properly designed, this street would help ease severe congestion and traffic hazards along Bodenhamer and would improve access to the eastern sections of town. Through-bound truck traffic to Adams-Millis would be diverted around existing neighborhoods.

Benefits from this improvement would be region-wide and should be State responsibility.

16. Acquire land for a future neighborhood park and playground in the eastern section.

The construction of new thoroughfares in the eastern sector coupled with already existing water and sewer services should stimulate more intensive development. Land for a neighborhood park and playground should be acquired in this area while open space is still available. Development of the recreation area could be deferred until neighborhood population justifies the cost of improvements.

17. Improve Pineview Drive between Cherry Street and Bodenhamer to function as the Southern Leg of the Inner Loop.

Beginning at Cherry Street (which connects with I-40) the inner loop would extend eastward to Main Street and connect with Pineview Drive which would be widened to a four-lane urban section. The eastern terminus of Pineview would be modified to turn northward and tie directly into East Mountain Street at the present English Street intersection. The Bodenhamer-Mountain intersection to the north would be re-aligned with new Pineview. Modification of the Bodenhamer-Mountain-Pineview intersection would result in a 600-foot section along Mountain Street between Bodenhamer and Pineview which would be improved with adequate turning and through traffic lanes.

This improvement is a key to improving circulation in the downtown area and will be absolutely essential when development of the Harmon property takes place. It would benefit the entire community with responsibility for initiation and construction resting with the locality.

18. Improvement of Salisbury Street from the Pineview Drive intersection south to the Outer Loop.

Coordinated with the Pineview Drive improvement would be the widening of Salisbury Street to four lanes from Pineview Drive (Inner Loop) to the southern leg of the Outer Loop. Due to the extent of anticipated development both east and west of Salisbury Street, this section would become a major distributor of local traffic between the Inner and Outer Loops.

In order to prevent a "bottle-neck" at Salisbury and Main, this improvement must be tied to an improved Pineview Drive and should not be undertaken alone.

Benefits from this improvement would be realized by the entire southern half of the town. Initiation will depend on the Town.

19. Develop a Community Park in the Southern Section of Town.

As illustrated by the Community Facilities Plan, community-wide recreation facilities are all located in the north-central and northwestern areas of town. The southern section will possibly be the most rapidly developing portion of the community over the next twelve years. In order to properly provide for the recreation needs of these people, a community-wide park including facilities for both passive and active pursuits is proposed in the south-central section of the Planning Area. Even though this recreation area would be most easily accessible to people in the south side, its service area would be the total community.

20. Develop a system of pedestrian-ways and bicycle paths.

A system of pedestrian-ways and bicycle paths linking residential neighborhoods with recreation areas and shopping centers would offer many benefits to the community. These proposed facilities would provide for the safe conduct of one of the most rapidly growing forms of recreation and would encourage a healthy alternative form of transportation to help reduce automobile congestion and air pollution. As a result, Kernersville could maintain a "pedestrian scale" and livability unique in the Triad Area.

FINANCIAL PROFILE

Public improvement needs and proposals are placed in realistic perspective by examining the Town's fiscal trends and resources. In short, to what extent can Kernersville afford future capital improvements?

Kernersville's budget for the current fiscal year (July 1, 1972 to June 30, 1973) totals \$1,158,893. Not included in this budget amount are Federal General Revenue Sharing funds which are expected to total about \$190,000 by the end of the year. A breakdown of budget by major funds is presented in Table 4.

TABLE 4
SUMMARY OF BUDGET FOR FISCAL YEAR 1972-73
TOWN OF KERNERSVILLE, NORTH CAROLINA

	<u>Amount</u>	<u>Percent of Total</u>
General Fund	\$ 611,835	45.3
Water and Sewer Fund	271,784	20.2
Debt Service Fund	208,555	15.5
Equipment Trust Fund	25,579	1.9
Special Assessment Fund	<u>41,140</u>	3.1
 Subtotal (budget adopted 7-5-72)	 <u>\$1,158,893</u>	
 Federal General Revenue Sharing Fund	 <u>190,000</u>	 <u>14.0</u>
 Total	 <u>\$1,348,893</u>	 100.0

Sources: Annual Budget, Town of Kernersville, 1972-73
Town Manager

The principal sources of funds for public capital improvements are the General Fund, the Federal Revenue Sharing Fund, and General Obligation Bonds. The other funds - - Water and Sewer, Equipment Trust, and Special Assessment - - may contribute to capital improvements in certain cases; however, they are not considered major generators of revenue for capital expenditures.

GENERAL FUND

Ad valorem property taxes account for over 65 percent of General Fund revenue. State shared revenue (intangible tax, alcoholic beverage tax, and Powell Bill funds) and fees from utility franchises are other major revenue sources but in much smaller proportion than property taxes (see Table 5).

On the expenditures side, administrative functions require almost 38 percent of the General Fund expenditures budget followed by streets, police, sanitation, fire, buildings and grounds, public works administration, and planning and code enforcement (see Table 6).

The relationship between revenue and expenditures has constantly fluctuated over the past five years as illustrated by the following chart:

FIGURE 6
GENERAL FUND REVENUE AND EXPENDITURES
KERNERSVILLE, NORTH CAROLINA, 1968 - 1973

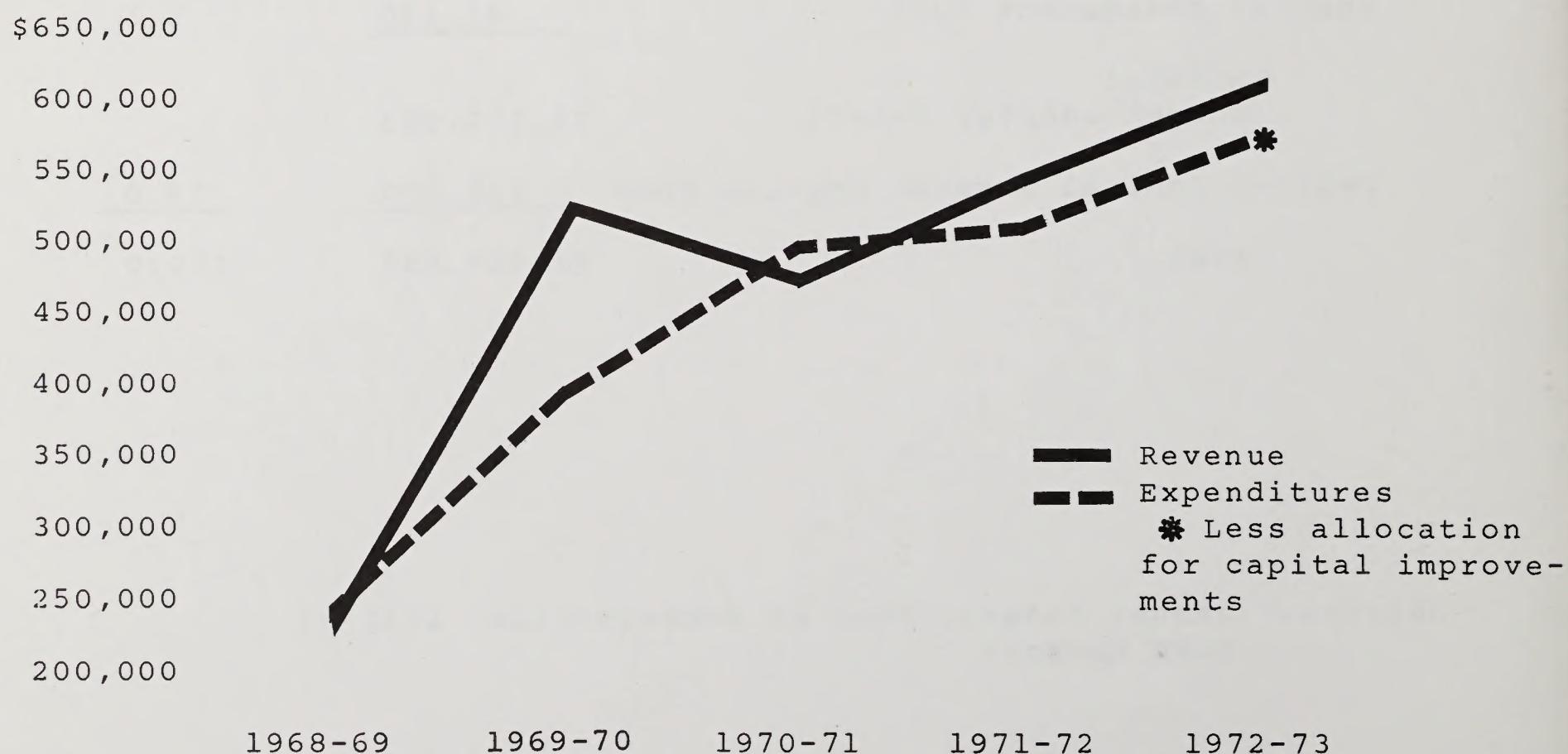


TABLE 5

**GENERAL FUND REVENUE
KERNERSVILLE, NORTH CAROLINA**

GENERAL FUND	FY Estimate	1972 - 73	FY Estimate	1971 - 72	FY Audit	1970 - 71	FY Audit	1969 - 70	FY Audit	1968 - 69	FY Audit
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
General Property Taxes											
Ad Valorem Tax-prior years	\$ 6,000	0.9	\$ 26,000	4.7	\$ 9,249	2.1	\$ 5,264	1.0	\$ 11,832	5.0	
Ad Valorem Tax-current years	399,669	65.3	381,000	69.1	345,070	72.9	426,548	83.0	156,056	67.0	
Penalties and interest	1,000	0.1	6,000	1.1	2,503	0.5	1,672	0.1	3,344	1.1	
Licences											
Motor Vehicle Privilege	2,200	0.4	2,200	0.4	930	0.3	1,736	0.1	1,218	1.0	
	6,000	0.9	6,000	1.1	5,059	1.2	4,905	0.1	4,624	2.1	
Fines & Forfeitures											
	175	0.1	175	0.1	98	0.1	99	0.1	272	0.1	
Rents & Interests											
Interest on investments	2,000	0.3	2,000	0.4	2,655	0.1	2,121	0.1	646	0.1	
Rent on Town property	5,500	0.9	5,500	0.9	2,780	0.1	650	0.1	100	0.1	
Utility franchise	40,000	6.5	36,756	6.7	30,709	6.6	17,983	4.0	5,977	3.1	
Miscellaneous Revenue											
Intangible Tax	23,835	3.9	23,835	4.3	29,437	6.2	13,533	4.0	13,127	6.0	
Alcoholic Beverage Tax	10,793	1.8	10,793	2.0	6,501	1.5	6,257	1.0	3,975	2.0	
Powell Bill (street funds)	58,038	9.5	27,908	5.0	22,615	4.8	21,555	4.0	16,564	7.0	
Court facility fees	1,800	0.3	1,783	0.3	1,600	0.3	2,211	0.1	7,244	3.0	
Protective inspection fees	4,800	0.8	2,752	0.5	2,290	0.5	1,566	0.1	1,829	1.0	
Land fill use fees	10,000	1.6	9,245	1.7	5,162	1.1	5,326	1.0	1,027	0.2	
Refund - gasoline tax	2,300	0.4	2,119	0.4	1,731	0.4	1,759	0.1	876	0.1	
Refund - sales tax	1,500	0.3	1,408	0.3	1,375	0.4	832	0.1	702	0.1	
Traffic control maintenance	425	0.1	850	0.2	4,560	0.8	4,297	0.9	492	0.1	
Other receipts	4,800	0.8					3,959	1.0	2,196	1.0	
Appropriated surplus	31,000	5.1									
TOTAL	\$611,835	100	\$550,884	100	\$474,067	100	\$518,468	100	\$231,609	100	\$100.0

Sources: Annual audit reports for Fiscal Years 1968-69, 1969-70, 1970-71 by W. Penn Lewis, CPA.
Annual budget, 1972-73

TABLE 6

GENERAL FUND EXPENDITURES
KERNERSVILLE, NORTH CAROLINA

1969 - 1973

	FY 1972 - 73 Budgeted Expenditures	Percent Of Total	FY 1971 - 72 Estimated Expenditures	Percent Of Total	FY 1970 - 71 Audited Expenditures	Percent Of Total	FY 1969 - 70 Audited Expenditures	Percent Of Total	FY 1968 - 69 Audited Expenditures	Percent Of Total
Administrative	\$231,715	37.8	\$219,757	43.0	\$154,780	31.1	\$ 73,066	18.1	\$ 70,192	29.3
Recorder's Court	---	---	---	---	---	---	---	---	4,648	1.9
Planning, Zoning & Protection Inspection	17,635	2.8	14,155	3.5	11,116	2.2	3,025	0.8	43,807	18.3
Police	75,186	12.0	68,258	13.0	63,141	12.7	53,830	13.3	19,954	8.3
Fire	38,840	6.0	35,755	7.0	34,665	7.0	32,901	8.2	23,684	9.9
Public Works Administration	28,359	4.6	22,209	4.0	38,015	7.6	27,629	6.8	---	--
Building & Grounds	33,822	5.0	50,957	10.0	18,379	3.7	13,973	3.5	39,109	16.4
Streets	121,155	19.8	50,932	10.0	108,192	21.7	75,073	18.6	34,916	14.6
Sanitation	74,123	12.0	47,560	9.5	59,566	12.0	45,839	11.4	---	--
Transfers to Other Funds	---	---	---	---	---	---	33,000	8.2	3,056	1.3
Equipment Trust Fund	---	---	---	---	---	---	45,000	11.1	---	--
Special Assessment Fund	---	---	---	---	---	---	10,000	2.0	---	--
Sewer Construction Fund	---	---	---	---	---	---	---	---	---	--
Total	\$611,835	100.0	\$509,583	100.0	\$497,854	100.0	\$403,337	100.0	\$239,366	100.0

Source: Annual audit reports for Fiscal Years 1968-69, 1969-70, 1970-71 by W. Penn Lewis, CPA
Annual budget, 1972-73

Annexation was largely responsible for the large increase in revenue during FY 1969-70. It is significant to note that this increase was immediately followed by an increase in expenditures.

General Fund expenditures for capital items have been limited during the past five years. Early in the period transfers were made to the Equipment Trust Fund to help in the purchase of a fire pumper and a transfer to the Special Assessment Fund as a supplement for street, water, and sewer work. The current budget allocates \$32,451 for street improvements of a capital nature.

FEDERAL GENERAL REVENUE SHARING FUND

Under provisions of the State and Local Fiscal Assistance Act of 1972, Kernersville is receiving Federal General Revenue Sharing funds expected to total \$190,000 during the present fiscal year. The existing authorization of funds continues over a five-year period to December 31, 1976, during which time the Town will receive quarterly payments averaging about \$160,000 annually. *

As provided by the act, General Revenue Sharing Funds may be used for "ordinary and necessary" capital expenditures and/or for "ordinary and necessary" operating and maintenance expenditures in eight "high priority" categories: public safety, environmental protection, public transportation, health, recreation, libraries, social services for the poor or aged, and financial administration.

Kernersville used its initial revenue sharing payment (\$50,456) to purchase a new landfill site and two police cars. Obviously, these funds will be of great assistance to the Town in financing future improvements.

BONDING CAPACITY

Almost all recent capital improvements activity has been in water and sewer construction which has been financed by General Obligation bonds and by grants from the U. S. Department of Housing and Urban Development. The Town's outstanding bonded indebtedness at the end of FY 1972-73 is estimated to be \$1,738,000.

The bonding capacity of each North Carolina municipality is determined by the North Carolina Local Government Commission. In the past, this determination has been based on the formula of eight percent of the assessed valuation of taxable property in the community. New legislation to become effective July 1, 1973 will change the formula to eight percent of the appraised valuation. Under the new formula and using the current appraised valuation of \$51,694,133, Kernersville has a bonding limit of \$4,135,530; its unutilized capacity is \$2,397,530.

* Due to a number of variables and unknowns in the complex formula used to determine local funds entitlements, it is impossible at this point to estimate future payments with accuracy.

FINANCE PROJECTION

The ability of Kernersville to meet public improvements needs over the next few years can be estimated by projecting recent fiscal trends. Fiscal Years 1971-72 and 1972-73 serve as the base years for this projection.

TABLE 7

PROJECTION OF GENERAL FUND AND REVENUE SHARING FUND
KERNERSVILLE, NORTH CAROLINA 1971-1979

<u>Fiscal Year</u>	<u>General Fund</u>			<u>Federal General Revenue Sharing</u>	<u>Potential Amount Available For Capital Improvements</u>
	<u>Revenue</u>	<u>Operating Expenses</u>	<u>Difference</u>		
1971-72	\$ 550,884	\$ 509,583	\$ 40,301	\$ - - -	\$ 40,301
1972-73	611,835	579,384	32,451	190,000	222,907
- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
1973-74	700,300	660,500	39,800	160,000	199,800
1974-75	801,600	753,000	48,600	160,000	208,600
1975-76	919,500	858,400	61,100	160,000	221,100
1976-77	1,058,000	978,600	74,400	160,000	234,400
1977-78	1,222,700	1,115,600	107,100	160,000	267,100
1978-79	1,419,600	1,271,700	147,900	160,000	307,900
Total (1973-1979)			\$ 478,900	\$ 960,000	\$1,438,900

Source: Batten Associates

The above projection is based on the following set of assumptions:

- The rate of development in Kernersville over the next six years will approximate current trends.
- Value of property added to tax rolls by new construction or annexation will average \$4 million per year, adding an average of \$35,000 per year in ad valorem taxes.
- Other revenue will continue to increase at the present rate of 25 percent per year.
- Increase in general fund operating expenditures can be held to the present rate of 14 percent per year.
- Federal general revenue sharing will yield an average of \$160,000 and will be continued past 1977.

Should any of these assumptions change, the projections must be appropriately adjusted.

CONCLUSION

On a day-to-day operational basis the financial condition of Kernersville seems to be very sound. From the long-term standpoint, with general revenue sharing and the indication of a consistent surplus between General Fund revenue and operational expenses, it appears that the Town is in a position to place increased emphasis on meeting public improvement needs. For the immediate future these two sources of revenue should carry as much of the financing load as possible. The community's unused bonding capacity might be wisely reserved to back up or supplement the other sources. Additional sources of public improvements financing should be actively sought.

It is extremely important to understand that a favorable balance between revenue and operational expenses is very delicate and can be maintained only through sound community development practices and coordinated fiscal planning. Cost-benefit determinations must become a more important factor in the local decision making process.

CAPITAL IMPROVEMENTS BUDGET

The Capital Improvements Budget, set out as Table 8, identifies those top priority public improvements which should be initiated within the next six-year period and schedules them in a coordinated sequence. Cost estimates are given for each improvement and possible sources of financing are listed. All cost estimates should be regarded as rough and preliminary, and are intended to serve only as a guide in developing financing strategies until they can be refined through detailed engineering studies.

In some instances improvements of a lower priority rank are scheduled before higher rank items. This is because of the lag time required to plan, engineer, and negotiate financing for more extensive improvements and also because of cash-flow considerations.

Possible sources of financing listed in the budget are sources which appear most likely at this point in time. Due to the shifting nature of various Federal programs and the impoundment of appropriated funds, a minimum emphasis has been placed on Federal financial assistance other than General Revenue Sharing. Kernersville should monitor the status of various aid programs and stand ready to utilize them when they are available. Some possibilities for augmenting the Capital Budget include:

- Water and Air Pollution Control funds to help with the Salem Creek outfall
- Community Development Revenue Sharing to assist re-creation area acquisition and development and possibly water and sewer improvements
- Law Enforcement Revenue Sharing to assist construction of the Fire-Police Building.

TABLE 8

CAPITAL IMPROVEMENTS BUDGET
KERNERSVILLE, NORTH CAROLINA

1973 - 1979

<u>IMPROVEMENT</u>	<u>PRELIMINARY COST</u>	<u>FY 1973-74</u>	<u>FY 1974-75</u>	<u>FY 1975-76</u>	<u>FY 1976-77</u>	<u>FY 1977-78</u>	<u>FY 1978-79</u>
1. Salem Creek outfall construction engineering & contingency	\$ 594,000 <u>89,100</u>						
Total	\$ 683,100	\$ ---	\$ 300,000	\$ 383,100	\$ ---	\$ ---	\$ ---
2. Landfill equipment trencher loader compactor	80,000 50,000 <u>60,000</u>						
Total	\$ 190,000	\$ 190,000	\$ ---	\$ ---	\$ ---	\$ ---	\$ ---
3. Water-Sewer extensions to area south of I-40 between NC 150 and Salisbury St. water main sewer main engineering & contingency	27,000 23,000 <u>7,500</u>						
Total	\$ 57,500	\$ 57,500	\$ ---	\$ ---	\$ ---	\$ ---	\$ ---
4. Modification of I-40/NC 150 interchange; improvement of NC 150 from Old Winston Rd. to Outer Loop right-of-way bridge reconstruction ramp reconstruction (cloverleaf) grading & paving engineering & contingency	\$ 48,000 110,000 500,000 397,000 <u>158,300</u>						
Total	\$1,213,300	\$ ---	\$ ---	\$1,213,300	\$ ---	\$ ---	\$ ---
5. Improvement of NC 66 from I-40 to Shields Rd. right-of-way grading & paving engineering & contingency	13,000 572,000 <u>87,800</u>						
Total	\$ 672,800	\$ ---	\$ ---	\$ ---	\$ 672,800	\$ ---	\$ ---
6. Treated water supply line from Forsyth County system to Kernersville system construction engineering & contingency	243,000 <u>36,500</u>						
Total	\$ 279,500	\$ ---	\$ ---	\$ ---	\$ 279,500	\$ ---	\$ ---
7. Acquisition and development of Church Street Park land purchase site preparation multi-purpose courts landscaping, walkways, benches engineering & contingency	8,000 1,000 2,600 2,000 <u>1,000</u>						
Total	\$ 14,600	\$ 14,600	\$ ---	\$ ---	\$ ---	\$ ---	\$ ---

8. Acquisition and development
of neighborhood park & play-
ground in Burke St. area
land purchase (12 acres) 60,000
site preparation 1,000
multi-purpose courts 2,600
playfields (lighted) 45,000
landscaping, walkways,
benches 2,000
engineering &
contingency 4,000
Total \$ 114,600

9. Construction of Southern
& Western Legs of Outer Loop
right-of-way 238,000
grading & paving 2,618,000
I-40 interchange
(cloverleaf) 750,000
engineering &
contingency 505,200
Total \$ 4,111,200

10. Fire-Police Building
land purchase 30,000
construction 300,000
engineering &
contingency 45,000
fixed equipment 12,000
elevating platform 110,000
pumper 50,000
Total \$ 547,000

TOTAL EXPENDITURES \$ 7,883,600

POSSIBLE SOURCES OF FUNDING

General Fund & Federal General
Revenue Sharing Fund (from Table 7)
\$ 199,800 \$ 208,600 \$ 221,100 \$ 234,400 \$ 267,100 \$ 307,900

Winston-Salem/Forsyth County
estimated share of Salem Creek
outfall (to be negotiated)

State Highway Commission
--- 150,000 191,000 --- 672,800 4,111,200

Balance from previous year
139,000* 76,700 75,300 49,700 4,600 21,700

TOTAL REVENUE \$ 338,800 \$ 435,300 \$ 1,700,700 \$ 284,100 \$ 944,500 \$ 4,440,800

Balance
(Revenue less Expenditures)
\$ 76,700 \$ 75,300 \$ 49,700 \$ 4,600 \$ 21,700 57,600

* Estimated balance of Federal General
Revenue Sharing Fund at beginning of
FY 1973-74

Source: Batten Associates

APPENDIX
ENVIRONMENTAL IMPACT STATEMENT
ON
KERNERSVILLE COMMUNITY FACILITIES PLAN

This statement is prepared in response to requirements of the National Environmental Policy Act, Council on Environmental Quality Guidelines, U. S. Department of Housing and Urban Development, and the North Carolina Environmental Policy Act.

1. Summary of the Proposed Community Facilities Plan.

The Community Facilities Plan is concerned with four categories of public facilities and services which relate to the Kernersville Planning Area: municipal buildings and services; recreation and open spaces; public schools; and county services (library, health, ambulance, and social). Following is an outline summary of plan proposals and recommendations which might have a possible effect on the environment:

a. Municipal Facilities and Services

- (i) Construction of a new fire and police station and renovation of the present fire and police building to serve the Town's expanding administrative needs. An alternative proposal would be to construct only a new fire station and utilize the fire section of the present building for expansion of police operations. Under this alternative, an addition to Town Hall would be necessary.
- (ii) Addition of fire apparatus, including a ladder or elevating platform truck and one pumper.
- (iii) Initiation of negotiations with Winston-Salem and Forsyth County for construction of a water main from the county water system to the Kernersville system as a source of additional water for the Town.

(iv) Upgrading of the Salem Creek waste treatment plant to meet State Water and Air Resources Board requirements or extension of an outfall line to connect with the Winston-Salem system.

(v) Begin utilization of a new landfill site; addition of compacting, trenching, and leading equipment needed for the proper and efficient operation of the landfill.

b. Recreation and Open Space

(i) Improvement of Church Street Park with paved multi-purpose courts, landscaping, walks, benches, and lights.

(ii) Addition of tennis courts to the recreation area at Kernersville Elementary and Junior High Schools and/or at the YMCA.

(iii) Make minor repairs to a small community building at Harmon Park.

(iv) Acquisition of four areas with a minimum of 12 acres each in the northern, southern, and eastern sectors of the Planning Area for development as combination parks and playgrounds; addition of improvements on a staged basis as funds become available.

(v) Acquisition of one 20 acre area in the southern section for a city park; addition of improvements on a staged basis as funds become available.

(vi) Preservation of designated stream valleys and flood plain areas as a series of permanent open spaces and linear parks. Pedestrian walks and bicycle paths are proposed to be developed along certain sections of the linear parks linking residential areas with shopping and recreational centers.

c. Public Schools

- (i) Conversion of the heating plant at Kernersville Elementary School from coal to gas provided assurances can be received that the gas supply will be continuous.

d. County Services

All recommendations are of an operational nature and have no potential environmental impact.

2. Environmental Impact of the Proposed Plan

The basic purpose of the Community Facilities Plan is to set out improvements considered necessary to improve the quality of life in Kernersville. All proposals are directed toward this goal. Following is an assessment of impact by category:

a. Municipal Facilities and Services

- (i) Fire service proposals are intended to increase the fire fighting capability of the Kernersville Fire Department in order to decrease potential property loss to fire.

Since the proposal to construct a new fire station (or combination fire-police station) is preliminary and potential specific sites are not yet designated, it is impossible to evaluate the impact on-site improvements would have on the surrounding area. Certainly great care would be taken in site selection and station development to minimize any adverse impacts on surrounding properties.

The construction stage of a new station would involve inconvenience and temporary adverse impacts such as noise and construction traffic.

- (ii) The extension of county water mains to connect with the Kernersville water system is considered the most feasible and practical approach for obtaining additional water resources to meet the Town's future needs

Additional water resources must be available in Kernersville within the next few years if water service is to meet demand. The tap-on approach is desirable because

it involves a minimum of plant construction and would have only minor negative environmental influence during the installation of mains.

- (iii) An engineering study is presently underway to determine the most feasible way of handling waste disposal in the Salem Creek drainage area. Facilities for improved treatment and disposal (either reconstruction of the existing Salem Creek plant or extension of an outfall line to the County outfall) must be operational by the middle of 1976. As a result, water quality of Salem Creek will be improved and free from pollution potential.

Extension of an outfall to connect with the Winston-Salem system is probably the better alternative from an environmental standpoint because it would lead to eventual abandonment of the existing Salem Creek plant and any adverse influences this plant might produce.

- (iv) Utilization of a new landfill site will be necessary within the next two to three years. The Community Facilities Plan recommends careful site investigations prior to utilization in order to confirm that topographical and subsoil characteristics will permit efficient use of the site. Consideration is to be given to the means of buffering the site to minimize visual and sound influences and to the location of access roads in order to minimize the effect of landfill traffic on the surrounding area. Consideration should also be given to the eventual use of the land after it is filled.

With the addition of trenching, loading, and compacting equipment, the landfill operation should be efficient and, therefore, effective in reducing odor scattering material, rodents and insects. As a result, negative environmental influences would be negated.

Possible eventual use of the completed landfill for park and recreational purposes would constitute a very positive environment result.

b. Recreation and Open Space

All recreation area proposals of the Community Facilities Plan would result in the preservation of needed open spaces and in the development of parks for leisure time active and passive pursuits.

Stream valleys and flood plain open spaces are proposed to remain generally in their natural state. Any development in these areas would be limited to pedestrian and bicycle paths and perhaps occasional playfields. Preservation of natural conditions along the streams would have many environmental effects: wildlife habitats would be preserved; surface water runoff reduced; siltation reduced; water supplies protected; and ecological balance maintained.

The more concentrated recreational areas also proposed by the plan (neighborhood parks and playgrounds, and a city park) would offer many of the same environmental advantages as the pure open spaces. Since these areas would be intensively used for active as well as passive purposes, careful site selection, site planning, and development would be provided to minimize adverse influences (i.e. noise, light, dust, erosion, traffic, etc.).

c. Public Schools

The proposed conversion of the Kernersville Elementary School furnace from coal to gas would reduce air pollution and eliminate soot collection now evident at the facility. This is the only school proposal with possible environmental impact.

3. Adverse Environmental Effects Which Cannot be Avoided

The only adverse environmental effects which might result from plan proposals and which cannot be avoided would be from construction activities and only temporary in nature.

4. Alternatives to Proposed Plans and an Analysis of Alternatives

a. Municipal Facilities and Services

- (i) The only alternative to construction of a new fire station and headquarters would be not to build over and attempt to modify the present one to meet future needs. This is not considered a viable alternative and would do little to diminish any negative impacts resulting from new construction.
 - (ii) Two possibilities for additional water resources have been suggested locally as alternatives to tapping the county water system. One would be to drill local wells; another would be to pipe raw water from Duke Power Company's Belews Creek Reservoir. Feasibility of either of these possibilities has not been investigated. In both cases, a new water treatment plant would be required.
- The negative environmental effect of these alternatives would seem greater on cursory consideration than the tap-on approach. Positive environmental effect would be no greater.
- (iii) The two alternative methods for upgrading waste disposal and treatment in the Salem Creek area have been discussed previously. There are no other alternatives.
 - (iv) The landfill method of solid waste disposal is the most economical and environmentally satisfactory method available at the present time. New technology may produce a better method in the future.

Prior to utilization of a new landfill site, environmental concerns will be considered in greater detail and any alternatives investigated.

b. Recreation and Open Space

Alternatives to the recreation and open space proposals are a matter of degree -- to propose more open space or to propose less open space. An attempt has been made to be realistic in the proposals. Even so, the proposals are ambitious.

Since general areas are designated rather than specific sites, it is impossible to further define alternatives.

c. Public Schools

The only alternative to the fuel conversion proposal is to stay with coal. This may be necessary in light of possible natural gas shortages.

5. Relationship Between Local Short-Term Uses of the Environment and the Maintenance and Enhancement of Long-Term Productivity

Any proposal involving construction activities will result in inconveniences and certain short-term uses of the environment. These uses (i.e. noise; erosion from excavation and grading; traffic congestion from construction traffic and worker parking; tree-removal; etc.) are usually temporary and unavoidable, although great care should be taken to minimize them. Hopefully the end result of any public improvement will outweigh any short-term inconvenience.

The only proposal of the Community Facilities Plan, which would seem to have a short-term use of the environment, would be the landfill operation. A properly operated landfill should have a very minimum of adverse influences. Even under the best of circumstances though, there are times when there might be a negative environmental effect. This effect is minor compared with the negative impact of not having a method or place to dispose of solid waste. The product of a landfill can greatly enhance the environment.

6. Irreversible or Irretrievable Commitments of Resources

The Community Facilities Plan does not project any proposals which would bring about the irreversible or irretrievable commitments of resources.

7. Applicable Federal, State, and Local Environmental Controls

Water and air pollution controls.
Health and sanitary regulations.

8. Mitigation Measures Proposed to Minimize Impact

All proposals of the Plan should have a very minimal impact on the environment. Most potential negative environmental effects of public facilities can be mitigated by careful site selection and by good site planning and development techniques.

9. Problems and Objections Raised by Reviewing Groups

At the time of publication of this report, comments concerning the Environmental Statement have not been received.

